

**OMEGA TYPE VLSI - 1022 FPGA** board have been designed to offer low cost system to implement wide variety of digital logic circuits for those who need to rapidly prototype designs. With its large FPGA (50K gates), on-board output devices and parts, board is suitable for designs ranging from simple logic circuit to complex digital systems. The board contains the new JTAG programmable system flash from Xilinx, so design can easily be made nonvolatile. The trainer board is fully compatible with all versions of the Xilinx ISE tools.

### OBJECTS:

Logic designs, Simulation and test of

- 01 Basic Logic Gates
- 02 Shift Register
- 03 Serial Register
- 04 Serial Adder
- 05 Full Adder
- 06 Up Counter
- 07 VGA Interface
- 08 Ps2 Key Board Interface
- 09 Input Logic Switch Interface
- 10 Text Display
- 11 Four Bit Binary to Hex Display

### FEATURES:-

FPGA I/O board is featured with the following built in parts :

- 01 A 50 K gate Xilinx Spartan 2 FPGA with 50 K gates
- 02 Supports upto 140 user I / O signals to different peripherals and some left for user to configure custom designs
- 03 JTAG - Programmable XCFOIS platform flash ROM stores FPGA configurations indefinitely
- 04 A 50 MHz oscillator and a socket for a second oscillator
- 05 All I/O signals have ESD and short circuit protection
- 06 A JTAG programming port cable
- 07 96 Input/Output Signal Routed to three standard 40 pin expansion connector



### INPUT - OUTPUT DEVICES CONSISTS OF :

- 01 8 Input Logic switches
- 02 4 push buttons for Input stimulus
- 03 8 Output selection LED's
- 04 4 Digit Seven segment display
- 05 15 I/O on Breadboard for External Circuit
- 06 5V DC at 1Amp adaptor
- 07 Three Extension Connector 40Pin
- 08 One Accessory Port
- 09 PS2 Port
- 10 VGA Port

### LIST OF ACCESSORIES:

- 01 Xilinx ISE Web Pack with Installation manual (Provided it is freely downloadable)
- 02 Model Sim Starter Edition with Installation manual (Provided it is freely downloadable)
- 03 Video Demo DVD which includes sessions of
  - 3.1 Schematic Editor.
  - 3.2 Basic features of Model Sim Simulator.
  - 3.3 How to Use ISE & Web Pack tools.
  - 3.4 Downloading Designs to Digilent board using ISE & Web Pack tools.
- 04 User Manual.

### OTHER APPARATUS REQUIRED:

- 01 PC with Window XP and Internet connection at the time of Installation.

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

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